AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) An electrical circuit in a communications channel, comprising:

a first sub-circuit having a first input which receives a composite signal that includes a transmission signal component and a receive signal component, a second input which receives a replica transmission signal, a third input which receives an analog baseline correction current, and an output which provides a receive signal which comprises the composite signal minus the replica signal; and

a second sub-circuit for controlling the analog baseline correction current, so that the magnitude of the composite signal does not exceed a predetermined value of an operating parameter of the electrical circuit,

wherein the composite signal, the replica transmission signal, and the analog baseline correction current are <u>directly</u> connected together at a common node of the first sub-circuit.

2. (Original) The electrical circuit of claim 1, further comprising a power supply voltage source of a predetermined magnitude, wherein the operating parameter is the predetermined magnitude of the power supply voltage source.

3. (Original) The electrical circuit of claim 1, wherein the second sub-circuit includes a common-mode feedback circuit.

4. (Original) The electrical circuit of claim 3, wherein the common-mode feedback circuit includes an operational amplifier.

5. (Previously Presented) The electrical circuit of claim 4, wherein the operational amplifier has a first input which receives a first differential component of the composite signal, a second input which receives a second differential component of the composite signal, a third input which receives a common-mode voltage signal, and an output which provides a baseline correction current control signal.

6. (Original) The electrical circuit of claim 5, wherein the common-mode feedback circuit further includes a pair of transistors, each transistor having a respective input and wherein the output of the operational amplifier is coupled to the respective input of each of the transistors.

7. (Original) The electrical circuit of claim 1, wherein the second sub-circuit includes a current source.

8. (Previously Presented) The electrical circuit of claim 7, wherein the current source provides a constant baseline correction current control signal.

9. (Original) The electrical circuit of claim 1, wherein the second sub-circuit includes a resistor divider.

10. (Original) The electrical circuit of claim 9, wherein the resistor divider comprises a plurality of resistors, each of the resistors having a respective characteristic resistance.

11. (Previously Presented) The electrical circuit of claim 10, wherein the resistor divider provides a baseline correction current control signal that is related to the respective resistances of each of the resistors.

12. (Currently Amended) An electrical circuit in a communications channel, comprising:

an active resistive summing circuit which produces a receive signal as a difference between a composite signal and a replica transmission signal, the composite signal comprising a transmission signal component and a receive signal component; and

an analog baseline correction current control circuit which controls the magnitude of the composite signal,

wherein the composite signal, the replica transmission signal, and an output of the analog baseline correction current are <u>directly</u> connected together at a common node of the active resistive summing circuit.

13. (Original) The electrical circuit of claim 12, further comprising a power supply voltage source of a predetermined magnitude.

14. (Previously Presented) The electrical circuit of claim 13, wherein the analog baseline correction current control circuit controls the magnitude of the composite signal to be less than the magnitude of the power supply voltage source.

15. (Previously Presented) The electrical circuit of claim 12, wherein the analog baseline correction current control circuit includes a common-mode feedback circuit.

16. (Original) The electrical circuit of claim 15, wherein the common-mode feedback circuit includes an operational amplifier.

17. (Previously Presented) The electrical circuit of claim 16, wherein the operational amplifier has a first input which receives a first differential component of the composite signal, a second input which receives a second differential component of the composite signal, a third input which receives a common-mode voltage signal, and an output which provides a baseline correction current control signal.

18. (Original) The electrical circuit of claim 17, wherein the common-mode feedback circuit further includes a pair of transistors, each transistor having a respective

input and wherein the output of the operational amplifier is coupled to the respective input of each of the transistors.

19. (Previously Presented) The electrical circuit of claim 12, wherein the analog baseline correction current control circuit includes a current source.

20. (Previously Presented) The electrical circuit of claim 19, wherein the current source provides a constant baseline correction current control signal.

21. (Previously Presented) The electrical circuit of claim 12, wherein the analog baseline correction current control circuit includes a resistor divider.

22. (Original) The electrical circuit of claim 21, wherein the resistor divider comprises a plurality of resistors, each of the resistors having a respective characteristic resistance.

23. (Previously Presented) The electrical circuit of claim 22, wherein the resistor divider provides a current control signal that is related to the respective resistances of each of the resistors.

24. (Currently Amended) An electrical circuit in a communications channel, comprising:

an active resistive summer having a first input which receives a composite signal that includes a transmission signal component and a receive signal component, a second input which receives a replica transmission signal, a third input which receives an analog baseline correction current, and an output which provides a receive signal which comprises the composite signal minus the replica signal; and

a baseline correction current control circuit which controls the magnitude of the analog baseline correction current to thereby control the magnitude of the composite signal,

wherein the composite signal, the replica transmission signal, and the analog baseline correction current are directly connected together at a common node of the active resistive summer.

25. (Original) The electrical circuit of claim 24, further comprising a power supply voltage source of a predetermined magnitude.

26. (Previously Presented) The electrical circuit of claim 25, wherein the magnitude of the analog baseline correction current is controlled to control the magnitude of the composite signal to be less than the magnitude of the power supply voltage source.

27. (Previously Presented) The electrical circuit of claim 25, wherein the magnitude of the analog baseline correction current is controlled to control the magnitude of the composite signal to be equal to the magnitude of the power supply voltage source.

28. (Previously Presented) The electrical circuit of claim 24, wherein the baseline correction current circuit includes a common-mode feedback circuit.

29. (Original) The electrical circuit of claim 28, wherein the common-mode feedback circuit includes an operational amplifier.

30. (Previously Presented) The electrical circuit of claim 29, wherein the operational amplifier has a first input which receives a first differential component of the composite signal, a second input which receives a second differential component of a

composite signal, a third input which receives a common-mode voltage signal, and an output which provides a baseline correction current control signal.

31. (Original) The electrical circuit of claim 30, wherein the common-mode feedback circuit further includes a pair of transistors, each transistor having a respective input and wherein the output of the operational amplifier is coupled to the respective input of each of the transistors.

32. (Previously Presented) The electrical circuit of claim 24, wherein the baseline correction current control circuit includes a current source.

33. (Previously Presented) The electrical circuit of claim 32, wherein the current source provides a constant baseline correction current control signal.

34. (Previously Presented) The electrical circuit of claim 24, wherein the baseline correction current control circuit includes a resistor divider.

35. (Original) The electrical circuit of claim 34, wherein a plurality of resistors, respective characteristic resistance.

36. (Previously Presented) The electrical circuit of claim 35, wherein the resistor divider provides a baseline correction current control signal that is related to the respective resistances of each of the resistors.

37. (Currently Amended) A communication method for a communications channel, comprising:

receiving at a first input a composite signal that includes a transmission signal component and a receive signal component;

receiving at a second input a replica transmission signal;

receiving at a third input an analog baseline correction current;

providing an analog baseline correction current to substantially prevent the magnitude of the composite signal from exceeding a predetermined value of an operating

parameter of the electrical circuit; and

providing a receive signal comprising the composite signal minus the replica signal at an output,

wherein the composite signal, the replica transmission signal, and the analog baseline correction current are directly connected together at a common node.

38. (Original) The method of claim 37, further comprising

providing a power supply voltage source of a predetermined magnitude, wherein the operating parameter is the predetermined magnitude of the power supply voltage source.

39. (Previously Presented) The method of claim 37, wherein the analog baseline correction current is provided by a common-mode feedback circuit.

40. (Original) The method of claim 39, wherein the common-mode feedback circuit includes an operational amplifier.

41. (Previously Presented) The method of claim 40, further comprising: receiving a first differential component of the composite signal at a first input of the operational amplifier;

receiving a second differential component of the composite signal at a second input of the operational amplifier;

receiving a common-mode voltage signal at a third of the operational amplifier; and

providing a baseline correction current control signal at an output of the operational amplifier.

42. (Previously Presented) The method of claim 41, further comprising receiving the baseline correction current control signal at an input of a first transistor and at an input of a second transistor.

43. (Previously Presented) The method of claim 37, wherein the baseline correction current is provided by a current source.

44. (Previously Presented) The method of claim 43, further comprising the step of providing a constant analog baseline correction current.

45. (Previously Presented) The method of claim 37, wherein the analog baseline correction current is provided by a resistor divider.

46. (Original) The method of claim 45, wherein the resistor divider comprises a plurality of resistors, each resistor having a respective characteristic resistance.

47. (Previously Presented) The method of claim 46, wherein the analog baseline correction current is related to the respective resistances of each of the resistors.

48. (Currently Amended) A communication method for a communications channel, comprising:

producing a receive signal as a difference between a composite signal and a replica transmission signal, the composite signal comprising a transmission signal component and a receive signal component;

controlling the magnitude of the composite signal;

receiving at a first input a first differential component of the composite signal; receiving at a second input a second differential component of the composite signal;

receiving at a third input a common-mode voltage signal; and

providing at an output a baseline correction current control signal to control an analog baseline correction current,

wherein the composite signal, the replica transmission signal, and the baseline correction current control signal are <u>directly</u> connected together at a common node.

49. (Original) The method of claim 48, further comprising providing a power supply voltage source of a predetermined magnitude.

50. (Original) The method of claim 49, wherein the magnitude of the composite signal is controlled to be less than the magnitude of the power supply voltage source.

51. (Original) The method of claim 49, wherein the magnitude of the composite signal is controlled to be equal to the power -supply voltage source.

52. (Original) The method of claim 48, wherein the magnitude of the composite signal is controlled by a common-mode feedback circuit.

53. (Original) The method of claim 52, wherein the common-mode feedback circuit includes an operational amplifier.

54. (Cancelled).

55. (Previously Presented) The method of claim 48, further comprising providing the output of the operational amplifier to an input of a first transistor and an input of a second transistor.

56. (Original) The method of claim 48, wherein the magnitude of the composite signal is controlled by a current source.

57. (Previously Presented) The method of claim 56, further comprising providing a constant baseline correction current control signal to control the magnitude of the composite signal.

58. (Original) The method of claim 48, wherein the magnitude of the composite signal is controlled by a resistor divider.

59. (Original) The method of claim 58, wherein the resistor divider comprises a plurality of resistors, each of the resistors having a respective characteristic resistance.

60. (Original) The method of claim 59, further comprising controlling the magnitude of the composite signal in relation to the respective resistances of each of the resistors.

61. (Currently Amended) A method for a communications channel comprising:

receiving at a first input a composite signal that includes a transmission signal component and a receive signal component;

receiving at a second input a replica transmission signal;

receiving at a third input an analog baseline correction current;

controlling the magnitude of the analog baseline correction current to thereby control the magnitude of the composite signal; and

providing at an output a receive signal which comprises the composite signal minus the replica signal,

wherein the composite signal, the replica transmission signal, and the analog baseline correction current are directly connected together at a common node.

62. (Original) The method of claim 61, further comprising providing a power supply voltage source of a predetermined magnitude.

63. (Previously Presented) The method of claim 62, wherein the magnitude of the analog baseline correction current is controlled to control the magnitude of the composite signal to be less than the magnitude of the power supply voltage source.

64. (Previously Presented) The method of claim 62, wherein the magnitude of the analog baseline correction current is controlled to control the magnitude of the composite signal to be equal to the magnitude of the power supply voltage source.

65. (Previously Presented) The method of claim 61, wherein the magnitude of the analog baseline correction current is controlled by a common-mode feedback circuit.

66. (Original) The method of claim 65, wherein the common-mode feedback circuit includes an operational amplifier.

67. (Previously Presented) The method of claim 66, further comprising: receiving at a first input a first differential component of the composite signal;

receiving at a second input a second differential component of the composite signal;

receiving at a third input a common-mode voltage signal; and

providing at an output a baseline correction current control signal to control an analog baseline correction current.

68. (Original) The method of claim 67, further comprising providing the output of the operational amplifier to an input of a first transistor and an input of a second transistor.

69. (Previously Presented) The method of claim 61, wherein the magnitude of the analog baseline correction current is controlled by a current source.

70. (Previously Presented) The method of claim 69, further comprising providing a constant baseline correction current control signal.

71. (Previously Presented) The method of claim 61, wherein the magnitude of the analog baseline correction current is controlled by a resistor divider.

72. (Original) The method of claim 71, wherein the resistor divider comprises a plurality of resistors, each of the resistors having a respective characteristic resistance.

73. (Previously Presented) The method of claim 72, further comprising providing a baseline correction current control signal that is related to the respective resistances of each of the resistors.

74. (Currently Amended) An electrical circuit for a communications channel, comprising:

means for receiving at a first input a composite signal that includes a transmission signal component and a receive signal component;

means for receiving at a second input a transmission signal;

means for receiving at a third input an analog baseline correction current;

means for providing a receive signal comprising the composite signal minus the replica signal; and

means for providing ~~an~~ the analog baseline correction current to substantially prevent the magnitude of the composite signal from exceeding a predetermined value of an operating parameter of the electrical circuit,

wherein the composite signal, the transmission signal, and the analog baseline correction current are <u>directly</u> connected together at a common node.

75. (Original) The electrical circuit of claim 74, further comprising means for providing a power supply voltage source of a predetermined magnitude, wherein the

operating parameter is the predetermined magnitude of the power supply voltage source.

76. (Previously Presented) The electrical circuit of claim 74, wherein the analog baseline correction current is provided by a common-mode feedback circuit means.

77. (Original) The electrical circuit of claim 76, wherein the common-mode feedback circuit means includes operational amplifier means.

78. (Previously Presented) The electrical circuit of claim 77, further comprising:

means for receiving a first differential component of the composite signal at a first input of the operational amplifier means;

means for receiving a second differential component of the composite signal at a second input of the operational amplifier means;

means for receiving a common-mode voltage signal at a third input of the operational amplifier; and

means for providing a baseline correction current control signal at an output of the operational amplifier means.

79. (Previously Presented) The electrical circuit of claim 78, further comprising means for providing the baseline correction current control signal at an input of a first transistor and at an input of a second transistor.

80. (Previously Presented) The electrical circuit of claim 74, wherein current source means provide the analog baseline correction current.

81. (Previously Presented) The electrical circuit of claim 80, further comprising means for providing a constant analog baseline correction current.

82. (Previously Presented) The electrical circuit of claim 74, wherein resistor divider means provide the analog baseline correction current.

83. (Original) The electrical circuit of claim 82, wherein the resistor divider means comprises a plurality of resistors, each resistor having a respective characteristic resistance.

84. (Previously Presented) The electrical circuit of claim 83, wherein the analog baseline correction current is related to the respective resistances of each of the resistors.

85. (Currently Amended) An electrical circuit for a communications circuit, comprising:

means for producing a receive signal as a difference between a composite signal and a replica transmission signal, the composite signal comprising a transmission signal component and a receive signal component;

means for controlling the magnitude of the composite signal;

means for receiving at a first input a first differential component of the composite signal;

means for receiving at a second input a second differential component of the composite signal;

means for receiving at a third input a common-mode voltage signal; and

means for providing at an output analog baseline correction current control signal,

wherein the composite signal, the replica transmission signal, and the analog baseline correction current control signal are <u>directly</u> connected together at a common node of the producing means.

86. (Original) The electrical circuit of claim 85, further comprising means for providing a power supply voltage source of a predetermined magnitude.

87. (Original) The electrical circuit of claim 86, wherein the means for controlling the magnitude of the composite signal control the magnitude of the composite signal to be less than the magnitude of the power supply voltage source.

88. (Original) The electrical circuit of claim 86, wherein the means for controlling the magnitude of the composite signal control the magnitude of the composite signal to be equal to the magnitude of the power supply voltage source.

89. (Original) The electrical circuit of claim 85, wherein the magnitude of the composite signal is controlled by common-mode feedback circuit means.

90. (Original) The electrical circuit of claim 89, wherein the common-mode feedback circuit means include operational amplifier means.

91. (Cancelled).

92. (Previously Presented) The electrical circuit of claim 85, further comprising means for providing the output of the operational amplifier means to an input of a first transistor and an input of a second transistor.

93. (Original) The electrical circuit of claim 85, wherein the magnitude of the composite signal is controlled by current source means.

94. (Previously Presented) The electrical circuit of claim 93, further comprising means for providing a constant analog baseline correction current control signal to control the magnitude of the composite signal.

95. (Original) The electrical circuit of claim 85, wherein the magnitude of the composite signal is controlled by resistor divider means.

96. (Original) The electrical circuit of claim 95, wherein the resistor divider means comprises a plurality of resistors, each of the resistors having a respective characteristic resistance.

97. (Original) The electrical circuit of claim 96, further comprising means for controlling the magnitude of the composite signal in relation to the respective resistances of each of the resistors.

98. (Currently Amended) An electrical circuit for a communications channel, comprising:

means for receiving at a first input a composite signal that includes a transmission signal component and a receive signal component;

means for receiving at a second input a replica transmission signal;

means for receiving at a third input an analog baseline correction current;

means for controlling the magnitude of the analog baseline correction current to thereby control the magnitude of the composite signal; and

means for providing at an output a receive signal which comprises the composite signal minus the replica signal,

wherein the composite signal, the replica transmission signal, and the analog baseline correction current are <u>directly</u> connected together at a common node.

99. (Original) The electrical circuit of claim 98, further comprising means for providing a power supply voltage source of a predetermined magnitude.

100. (Previously Presented) The electrical circuit of claim 99, wherein the means for controlling the magnitude of the analog baseline correction current is controlled to be less than the magnitude of the means for providing a power supply voltage source of a predetermined magnitude.

101. (Previously Presented) The electrical circuit of claim 99, wherein the means for controlling the magnitude of the analog baseline correction current is controlled to be equal to the magnitude of the means for providing a power supply voltage source of a predetermined magnitude.

102. (Previously Presented) The electrical circuit of claim 99, wherein the magnitude of the analog baseline correction current is controlled by common-mode feedback circuit means.

103. (Original) The electrical circuit of claim 102, wherein the common-mode feedback circuit means includes operational amplifier means.

104. (Previously Presented) The electrical circuit of claim 103, further comprising:

means for receiving at a first input a first differential component of the composite signal;

means for receiving at a second input a second differential component of the composite signal;

means for receiving at a third input a common-mode voltage signal; and means for providing at an output a baseline correction current control signal.

105. (Original) The electrical circuit of claim 104, further comprising means for providing the output of the operational amplifier to an input of a first transistor and an input of a second transistor.

106. (Previously Presented) The electrical circuit of claim 98, wherein the magnitude of the analog baseline correction current is controlled by current source means.

107. (Previously Presented) The electrical circuit of claim 106, further comprising means for providing a constant analog baseline correction current control signal.

108. (Previously Presented) The electrical circuit of claim 98, wherein the magnitude of the analog baseline correction current is controlled by resistor divider means.

109. (Original) The electrical circuit of claim 108, wherein the resistor divider means comprises a plurality of resistors, each of the resistors having a respective characteristic resistance.

110. (Previously Presented) The electrical circuit of claim 109, further comprising means for providing a baseline correction current control signal that is related to the respective resistances of each of the resistors.